

(b) exposing the DNA construct to a hormone selected from the group consisting of lactogenic hormones, somatogenic hormones and mixtures thereof; wherein the enhancer element comprises the nucleotide sequence TTCTGAGAA, with the proviso that the nucleotide sequence does not contain the DNA sequence of nucleotide sequence SEQ ID NO:1, and wherein the enhancer element is responsive to both lactogenic hormones and somatogenic hormones.

5. (Fourth Amendment) An enhancer element which when used in a DNA construct for transfection of a eucaryotic host cell is responsive to hormonal stimuli, said enhancer element consisting essentially of the nucleotide sequence TTCTGAGAA, wherein the enhancer element is responsive to both lactogenic hormones and somatogenic hormones.

8. (Third Amendment) An expression vector comprising a structural gene encoding a desired protein or polypeptide and a promoter, wherein the vector further comprises six copies of an enhancer element, and further wherein at least one of the copies of the enhancer element consists essentially of the nucleotide sequence TTCTGAGAA.

10. (Fourth Amendment) The expression vector according to claim 9, wherein at least one other copy of the enhancer element is the nucleotide sequence SEQ ID NO:1.

19. (Third Amendment) An in vitro method of enhancing the transcription of a gene in a DNA construct comprising a structural gene and a promoter upstream of the structural gene, the method comprising;

(a) placing the DNA construct in an eukaryotic host cell wherein transcription can occur;

- (b) transfecting the eukaryotic host cell with DNA consisting of the nucleotide sequence TTCTGAGAA to incorporate at least one enhancer element consisting of the nucleotide sequence TTCTGAGAA upstream of the promoter, and
- (c) exposing the DNA construct to a hormone selected from the group consisting of lactogenic hormones, somatogenic hormones and mixtures thereof.

23. (Third Amendment) An enhancer element responsive to a hormone selected from the group consisting of lactogenic hormones, somatogenic hormones and mixtures thereof when the enhancer element is used in a DNA construct for transfection of a eukaryotic host cell; wherein the enhancer element consists essentially of the nucleotide sequence TTCTGAGAA.

27. (Third Amendment) An expression vector comprising a structural gene encoding a protein, a promoter, and at least one enhancer element consisting essentially of the nucleotide sequence TTCTGAGAA, wherein the enhancer element is incorporated with the structural gene by construction.

30. (Twice Amended) A DNA comprising a promoter, a structural gene, and at least one enhancer element consisting essentially of the nucleotide sequence TTCTGAGAA, wherein the enhancer element is incorporated with the structural gene by construction.

31. (Twice Amended) A DNA according to claim 30, comprising from one to six enhancer elements.

34. (Third Amendment) An in vitro method of enhancing the transcription of a gene in a DNA construct comprising a structural gene, a promoter upstream of the structural gene,

and at least one enhancer upstream of the promoter; the method comprising
placing the DNA construct in an environment wherein transcription can occur;
and
exposing the DNA construct to a hormone selected from the group consisting of lactogenic
hormones, somatogenic hormones and mixtures thereof;
wherein the enhancer element consists essentially of the nucleotide sequence TTCTGAGAA.

44. (Twice Amended) An isolated DNA construct comprising a structural gene, a
promoter and six repeats of an enhancer, wherein the enhancer consists essentially of the
sequence TTCTGAGAA.

46. (Twice Amended) An in vitro method of enhancing the transcription of a gene,
the method comprising the steps of:

- (a) providing a cell comprising the gene and a promoter upstream of the gene,
- (b) transfecting the cell with a DNA construct comprising at least one copy of the
nucleotide sequence TTCTGAGAA upstream of the promoter, and
- (c) exposing the DNA construct to prolactin.

48. (Twice Amended) An in vitro method according to claim 47, comprising
incorporating six copies of the nucleotide sequence TTCTGAGAA upstream of the promoter.